

*REMARKS/ARGUMENTS*

The present invention provides several fundamental and significant improvements related to underwater cables, including towed seismic streamer cables used in offshore seismic prospecting. The Examiner's careful attention to all of the various aspects of the present invention is greatly appreciated.

New claims 32-62 have been added. Each of new claims 32-48 depend directly or ultimately from pending independent claim 3 or 5. New claim 49 is the sole new independent claim. Each of new claims 50-62 depend directly or ultimately from new independent claim 49.

Thiennot fails to anticipate any of independent claims 26, 27, or 29. Each of these claims is directed to obtaining clock data from outbound data for devices spaced along the underwater cable and transmitting inbound data from the devices spaced along the underground cable in accordance with the clock data obtained from the outbound data. Thiennot discloses an entirely different arrangement in which fibers F1-F4 provide transmission between terminal stations (See FIG 12). Thiennot further discloses that the drop and insert switches EI include a memory MI which "performs a buffer function enabling intermediate data to be stored in sufficient quantity to compensate for the fact that there is no reason for the insertion data to have any rigid time synchronization with the data that is dropped." (See column 6, lines 25-34). Consequently, each of independent claims 26, 27 and 29 are patentable over Thiennot.

Hall fails to anticipate independent claim 31. Claim 31 is directed to an underwater electrical device for an underwater cable in which the primary and secondary of a transformer are coupled between the electrical device and the underwater cable. Hall fails to disclose anything related to an underwater electrical device, an underwater cable, or a transformer coupled between them. Consequently, independent claim 31 is patentable over Hall.

Klontz fails to render independent claim 3 or 5 unpatentable. Each of independent claims 3 and 5 comprise a main power line extending through an underwater cable and power distribution lines within the underwater cable for distributing the power. Klontz fails to disclose or suggest power distribution lines within an underwater cable. Further, one skilled in the art would find no motivation to put power distribution lines in the cable 340 of Klontz. Klontz expressly considered the issue of power distribution ("Another object of the present invention is to provide an improved flexible underwater power distribution system." Column

3, lines 17-19) and then taught that power should be supplied along the cable 340 to various loads only by means of a main conductor 340', 340". (Column 20, lines 37-39). One skilled in the art reading Klontz would be taught that power is taken directly off this main conductor via a link 350 on the exterior of the cable. Consequently, independent claims 3 and 5 are each patentable over Klontz.

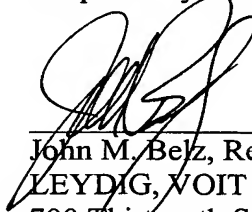
Klontz fails to render independent claims 7 and 9 unpatentable. As noted by the Examiner, Klontz fails to disclose the elements of either claim 7 or 9. Further, the assertion in the Office Action related to what is "well known in the art" is respectfully traversed. Klontz is the best reference found by the Examiner and it fails to even hint at what the Office Action states is "well known in the art." Consequently, each of independent claims 7 and 9 are patentable over Klontz.

Klontz fails to render independent claims 11, 12 and 13 unpatentable. Independent claims 11 and 12 define couplers having circumferentially spaced coils while independent claim 13 defines a coupler including a core having a substantially triangularly shaped cross section. As noted in the Office Action, Klontz fails to teach these aspects of the invention. While magnetic and capacitive coupling may be generally well known in the art, nothing in the art, especially Klontz, teaches the specifics of the subject matter claimed in claims 11, 12, or 13.

New independent claim 49 defines an underwater data communication system which comprises a first data communications circuit disposed along an underwater cable. The system also includes a second data communications circuit disposed along the underwater cable, where communications over the second data communications circuit is at a lower bit rate than over the first data communications circuit. The system further includes circuitry to switch between the first and second data communications circuits. Independent claim 18 was

allowed over the prior art and it is respectfully contended that claim 49 is allowable over the prior art.

Respectfully submitted,



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